

We claim:

1. A display device comprising:
 - a plurality of emitting pixels;
 - 5 at least one switching electronic corresponding to each said pixel for selectively activating or deactivating each said pixel;
 - 10 at least one additional component for interconnecting said pixels and said switching electronics;
 - 15 at least two ambient light reducing members each integrally embedded into at least one of: a) said pixels, b) said switching electronics and c) said at least one additional component; said ambient light reducing members being disposed in a plane that is visible to a viewer and selected from materials and thicknesses such that reduced ambient light reflections in said plane are substantially uniform.
2. The display device according to claim 1 wherein said emitting pixels are bottom emitting.
- 15 3. The display device according to claim 1 wherein said emitting pixels are top emitting.
4. The display device according to claim 1 wherein said at least one additional component is a set of bus lines for delivering electrical current to said pixels and said switching electronic.
- 20 5. The display device according to claim 1 wherein said emitting pixels are comprised of an OLED stack and wherein at least one of said ambient light reducing members is integrated with said OLED stack.
6. The display device according to claim 1 wherein at least one of said ambient light reducing members is integrated with said switching electronic.
- 25 7. The display device according to claim 6 wherein at least one of said ambient light reducing members forms part of a circuitry of said switching electronic.

8. The display device according to claim 7 wherein said switching electronic includes at least one transistor and said ambient light reducing member is a storage capacitor for said at least one transistor.

9. The display according to claim 1 wherein said ambient light reducing member is an
5 optical interference member.

10. The display according to claim 9 wherein said optical interference member includes a semi-absorbing layer for reflecting a portion of incident ambient light, a substantially transparent layer for phase shifting another portion of ambient light and a reflective layer for reflecting said phase shifted ambient light such that said two reflected portions of light are
10 out-of-phase and thereby destructively interfere.

11. A display device comprising:

a plurality of emitting pixels;

at least one switching electronic corresponding to each pixel for selectively activating or deactivating said pixel;

15 at least one additional component for interconnecting said pixels and said switching electronics; and,

an ambient light reducing member integrally embedded into said switching electronic to form part of an electronic circuitry of said switching electronic, said ambient light reducing member being disposed in a plane that is visible to a viewer and selected
20 from materials and thicknesses to reduce ambient light reflections.

12. The display device according to claim 11 wherein said electronic switching component includes at least one transistor and said ambient light reducing member is a storage capacitor for said at least one transistor.

13. A computer implemented method of matching the reflectance between different
25 ambient light reducing members in a display comprising the steps of:

receiving a first set of data representing an initial specification for a first set of components in an active display device;

determining, based on said first set of data and a predefined database of ambient light reduction member configurations, a first ambient light reducing member for incorporation into said first set of components;

5 receiving at least one additional set of data representing an initial specification for at least one additional set of components in said active display device;

determining, based on said at least one additional set of data and said predefined database, at least one additional ambient light reducing member for incorporation into said at least one set of components;

10 generating a model of said active display device based on an assembly of said first set of data, said first ambient light reducing member, said at least one additional set of data, and said at least one additional ambient light reducing member;

measuring ambient light reflectance across said model;

15 determining whether said reflectance is substantially uniform based on said measuring step and, if said reflectance is non-uniform, reconfiguring at least one of said specifications and said ambient light members until a desired level of uniformity is achieved; and,

outputting a specification for said display.

14. The computer implemented method according to claim 13 wherein said first set of components are light emitting pixels and said at least one additional set of components are 20 switching electronics corresponding to said light emitting pixels.

15. The method according to claim 13 wherein desired level of uniformity occurs when the difference between the reflectivities is less than about ten percent.

16. The method according to claim 13 wherein desired level of uniformity occurs when the difference between the reflectivities is less than about five percent.

25 17. The method according to claim 13 wherein desired level of uniformity occurs when the difference between the reflectivities is less than about three percent.

18. The method according to claim 13 wherein desired level of uniformity occurs when the difference between the reflectivities is less than about 0.5 percent.